

REMARKS

Claims 1-13 and 15 are pending in this application, of which claims 1, 9, 11 and 15 are independent. Favorable reconsideration of the action mailed November 4, 2005, and further examination are respectfully requested in light of the following remarks.

Comments of the applicant are preceded by related comments of the examiner in small bold-faced type:

2. **Claims 1, 3, 5-9, 11-12 and 15 are rejected under 35 U.S. C. 102(e) as being anticipated by Hasegawa et al., U.S. Patent No. 5,878,029 (hereinafter Hasegawa).**
3. **With respect to claims 1, 9, 11, and 15, Hasegawa teaches a communication system for implementing an overall communication policy [fig.9] comprising:**
 - **a first interface for accepting a first plurality of separate communication links forming a first trunked communication link [item 60 of fig.24 i.e. route a =10M];**
 - **a second communication interface for accepting a second plurality of separate communication links forming a second trunked communication link [item 61 of fig.24 i.e. route b = 10M]; and**
 - **a plurality of processors [42-43 i.e. switches], each coupled to a corresponding different one of the first plurality of separate communication links and coupled to a corresponding different one of the second plurality of communication links, and coupled to one another over a communication channel [figs.24-26];**
 - **wherein each processor in plurality of processor is configured to implement a separate communication policy for data passing between the first trunked communication link and a corresponding one of the second plurality of communication links such that together the separate communication policies (i.e. each of requested bandwidth as route a or b) approximate the overall communication policy (i.e. usable bandwidth) [col. 18, ln. 13 - col. 19, ln.62], and wherein the plurality of processors are further configured to communicate among one another to adjust the separate communication policies to adapt to data flows passing through the processors [col. 4, lns. 27-46 and fig.25 i.e. allow bandwidth increase].**

The applicant disagrees. Hasegawa discloses techniques for shortening the time it takes for a source-side subscriber switch of a variable bandwidth network to change the bandwidth allocated for use by a route in response to a bandwidth change request received from a terminal. (*see Abstract; col. 4, lines 28-46*). In Hasegawa, each switch (subscriber and transit) collects, in advance, information related to the residual bandwidth of each route passing through the switch, where the residual bandwidth of each route is the calculated difference between the capacity of a physical transmission path connecting the switch with an adjacent switch and the amount of

bandwidth that has been allocated for use by the routes passing through the switch. (col. 3, lines 25-37; col. 4, lines 27-30). Each switch on a route notifies the source-side subscriber switch of the residual bandwidth for each route at that switch. On the basis of the residual bandwidth notified from each switch for a particular route, the source-side subscriber switch evaluates the amount by which the bandwidth can subsequently be increased in that route, and allows/rejects bandwidth change requests accordingly. (col. 6, lines 13-18; col. 14, lines 31-38).

Claim 1 recites a system that includes a set of processors “wherein each processor in the plurality of processors is configured to implement a separate communication policy for data . . . such that together the separate communication policies approximate the overall communication policy.” The examiner appears to suggest that the bandwidth allocated by a particular switch for use by a particular route that passes through the switch corresponds to the “separate communication policy” of claim 1, and appears to take the position that the aggregate of the bandwidth allocated to all of the routes that pass through the switch approximates the “overall communication policy.”

However, such a position is inconsistent with the teachings of Hasegawa. There is no notion of an “overall communication policy” in Hasegawa, much less an *approximation* of some overall communication policy in Hasegawa. In Hasegawa, the capacity of the physical transmission path (which the examiner asserts is the “overall communication policy”) serves merely as a *constraint* on the amount by which the bandwidth of any given route can be increased while ensuring that the aggregate of the bandwidth allocated to all of the routes that pass through the switch does not exceed the usable bandwidth. There is no disclosure or suggestion in Hasegawa of “separate communication policies” that together “approximate the overall communication policy” as recited in claim 1.

Claim 1 also recites that “the plurality of processors are further configured to communicate among one another to adjust the separate communication policies to adapt to data flows passing through the processors.” Assuming, for the sake of argument only, that the bandwidth allocated by a particular switch for use by a particular route that passes through the switch corresponds to the “separate communication policy” as suggested by the examiner, it

would appear that the examiner is taking the position that the switches communicate among one another to adjust the amount of bandwidth each switch allocates to respective routes to adapt to the data flows passing through the switch.

Such a position is also inconsistent with the teachings of Hasegawa. In Hasegawa, each switch communicates to the source-side subscriber switch the amount of *residual* bandwidth that is available at that switch for a particular route (e.g., route A) based on the amount of bandwidth that is being consumed by all of the routes that pass through that switch. In some instances, a switch may inform the source-side subscriber switch that no *residual* bandwidth is available for route A, in which case the source-side subscriber switch would reject a bandwidth change request for route A regardless of whether other switches through which route A would pass has available residual bandwidth. If the source-side subscriber switch allows a bandwidth change request (e.g., a request for a particular amount of bandwidth to be allocated to route A), the terminal from which route A originates (i.e., the terminal from which the source-side subscriber switch received the bandwidth change request) outputs route A at the increased bandwidth. The switches through which route A do not communicate with one another to adjust the amount of bandwidth that is allocated to route A. Rather, the switches merely respond to the increased bandwidth used by route A to recalculate the residual bandwidth available at that switch for route A. There is no disclosure or suggestion in Hasegawa of “the plurality of processors ... configured to communicate among one another to adjust the separate communication policies to adapt to data flows passing through the processors,” as recited in claim 1.

For at least these reasons, claim 1 and its dependents patentable over Hasegawa.

The foregoing remarks also apply to independent claims 11 and 15 which have corresponding limitations, and the claims that depend from claims 11 and 15.

Claim 9 is allowable for a number of independent grounds. First, claim 9 recites a system that includes “a second processor ... in communication with the first processor to maintain a mirror configuration on the second processor to implement the communication policy in a standby status relative to the first processor.” Further, the first processor in claim 9 “implements

the communication policy until the second processor detects a failure in the first processor, at which time the second processor implements the communication policy.”

The examiner has failed to identify which components of Hasegawa correspond to the first and second processors of claim 9. For the sake of argument only, the remarks that follow are based on the assumption that the examiner’s comments with respect to claim 5 apply to claim 9 and the examiner corresponds the switch 42 of FIG. 19 with the first processor and the switch 43 of FIG. 19 with the second processor. The applicant submits the route tables 62 and 63 of FIG. 19 do not indicate mirror states as the examiner contends. Rather, the switch 42 includes a bandwidth controller 52 that calculates the residual bandwidth associated with routes A and B as it relates to the switch 42, and the switch 43 has its own bandwidth controller 53 that calculates, independent of the bandwidth controller 52, the residual bandwidth associated with routes A and B as it relates to the switch 43. There is no notion anywhere in Hasegawa of one switch mirroring information of another switch. Also, Hasagewa does not contemplate any of its switches being used in a redundant manner in anticipation of a failure of one of the switches, and never uses the word “standby” with respect to the switches. Accordingly, it is no surprise that Hasegawa does not disclose or suggest “a second processor … in communication with the first processor to maintain a mirror configuration on the second processor to implement the communication policy in a standby status relative to the first processor, wherein the first processor implements the communication policy until the second processor detects a failure in the first processor, at which time the second processor implements the communication policy,” as recited in claim 9.

For at least these reasons, claim 9 and its dependents patentable over Hasegawa.

10. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hasegawa et al., U.S. Patent No. 5,878,029 (hereinafter Hasegawa) as applied to claim 1 above, and further in view of Howard, U.S. Patent No. 6,683,884 (hereinafter Howard)...

12. Claims 4, 10, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hasegawa et al., U.S. Patent No. 5,878,029 (hereinafter Hasegawa) as applied to claims 1, 9, and 11 above, and further in view of Raj et al., U.S. Patent No. 6,628,649 (hereinafter Raj)...

The dependent claims are patentable for at least the same reasons given with respect to the independent claims from which they depend.

Further, with respect to claim 2, the applicant respectfully submits that Hasegawa cannot be modified to include the features of Howard as suggested by the examiner as the techniques of Hasegawa deal with physical links that cannot borrow bandwidth from other physical links.

Further, with respect to claim 13, the applicant respectfully submits that Hasegawa cannot be modified to include the features of Raj as suggested by the examiner as the techniques of Hasegawa are directed to systems in which switches are series connected, which negates the possibility of one switch serving as a backup for another switch.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Enclosed please find a check in the amount of \$60.00 for extension fees. Please apply any charges or credits to deposit account 06-1050.

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Respectfully submitted,



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